XVIII.—Remarks on Richardson's Merlin (Falco richardsoni, Ridgway). By W. E. Brooks.

(Plate V.)

In the first volume of the British Museum Catalogue of Birds (p. 409), published in 1874, Dr. Sharpe stated that he was unacquainted with this species, and appended a short extract from the Proc. Phil. Acad. 1870, p. 147, in which Mr. Ridgway described, as a male, an earthy-brown coloured bird. This description must refer to the immature male, for the adult male is of a beautiful blue-grey above, and somewhat resembles the European Merlin, but is generally lighter toned, and, I think, more handsome.

I have now before me three fine examples of *Falco richard-soni*, and will make a few remarks on them.

In this species the outer webs of the primaries are spotted with white in the adult male, and with ochraceous in the immature male and female. In the female and young male the feathers of the upper surface have pale rusty edges, so that on examining the bird closely it is not uniform brown, as it appears to be at some little distance. female sent has also the brown of the upper surface strongly tinged with ash-grey, most conspicuous on the shoulders and rump. The number of light-coloured bars on the tail is variable. One which I examined—sexed as female, but which, on account of having only a 7.85 in. wing, I concluded was a male in first plumage—had six light crossbars and a light tip; but the uppermost bar was rather indistinct nearly at the root of the feather, quite hidden, of course, by the tail-coverts. The male appears to have five light tail-bars and a light tip. In the mature male these cross-bars are of a beautiful bluish grey; while in young males and females they are slightly ochraceous white.

Description of specimens from Larimer County, Colorado (female shot Feb. 24th; the male, Dec. 15th):—

Wing of male 7.6 inches, of female 8.8. 3, tail from

rump 4.7; \mathfrak{P} , \mathfrak{I} . The mantle of the male is of a pale or blue-grey, as in Swainson's Harrier. Broad white borders to lower mantle-feathers, and some of the primaries are broadly edged with white. Both sexes have rufous nuchal collars. The male has five white tail-bars, shaded with blue-grey, and a white tip. The female has the same number. Two of the bars are more or less obscured by the upper tail-coverts. I have seen another example in female plumage with six whitish bars and a white tip, but this, I think, is abnormal.

The upper plumage of the female is earthy brown, with a strong wash of ash-grey, and all the feathers have yellowish-rusty light edges. The wing-feathers are barred on their inner webs and are spotted on the outer, more or less, with reddish buff, as in the wings of the female Kestrel. The rump of the female is almost a blue-grey, with white borders to the feathers.

This little Hawk appears to affect principally a central tract of country from Texas to Colorado, Wyoming, Montana, and on to the Saskatchewan country of the North-west Territories. To the west of the Rocky Mountain line of country it extends even to the Pacific coast, and has been obtained in Oregon near Salem. I saw it at Chilliwack, in British Columbia, two or three times; and an immature male was procured, and lost when my house was burned. It was of the light earthy-brown tone, and had an extra number of tail-bars. A description of it was sent to Mr. Steineger, who said it was undoubtedly Falco richardsoni. Here I may observe that both F. suckleyi and F. columbarius occur in the Chilliwack country, and which of them is the more numerous I cannot say; but F. richardsoni is much rarer than either of the others. In Ontario and Eastern Canada only F. columbarius has been observed.

In a letter received from Mr. W. Brewster, of Cambridge, Mass., he says:—"Falco richardsoni is a common enough bird throughout most of the Rocky Mountain region. It breeds in the Saskatchewan country in such numbers that

one of our collectors took four sets of eggs in a single season. Nevertheless good skins are very hard to obtain. My way has been to buy all the 'Pigeon-Hawks' I could get from the central regions of the U.S., and take my chance of getting a *F. richardsoni* now and then among the common forms. Few field-collectors distinguish between the two species."

Mr. Brewster was right, for my first attempt was rewarded with a pale female F. columbarius; but in other cases a drawing of the central tail-feather of F. richardsoni prevented the arrival of more of that species. I had also three examples sent me by a friend for examination as "F. richardsoni," but they were merely large specimens of F. columbarius, a little weathered. In these three I noticed a variation in the number of tail-bars. No. 1 had three light bars and the tip: No. 2 four light bars and the tip; while No. 3 had five light bars and the tip, or the regulation number for F. richardsoni! But the tail-bars in F. columbarius are small and indistinct compared with those of the other bird, and have more of an oval spot at each side of the shaft. Then the whole coloration and general aspect of the three were decidedly as in F. columbarius, and not one of the specimens showed any nuchal collar. They were far too large, as well as much too dark, both on upper and under surfaces. Their first few primaries also had not any spots on their outer webs. This latter distinction my son Allan pointed out to me as the characteristic distinction, and I think he is right. But when once the general appearance of the little Hawk is understood, I think it would always be easy to separate it from F. columbarius, or anything else, apart from bars and wing-spots.

With the exception of the extract from Mr. Brewster's letter, I have not seen any other notice of its breeding.

[Mr. Brooks's specimens, from which the accompanying figures (Plate V.) have been taken, are now in the British Museum.—Edd.]

